



**Figure S1:** Rhythms of food intake in wild type and *per*<sup>01</sup> flies. (A) WT female food consumption is rhythmic in light-dark conditions, with a strong morning feeding peak and a slightly smaller evening feeding peak.  $p = 1.5 \times 10^{-4}$ . Average total food consumption per fly over a 24 hour period was 1.14  $\mu\text{L}$ . (B) The feeding rhythm dampens in constant darkness. Small peaks remain visible in both subjective morning and evening, but were not significant by JTK\_cycle in these experiments.  $p = 0.11$ . Average food consumption per fly over a 24 hour period was 0.87  $\mu\text{L}$ . (C) Food consumption in *per*<sup>01</sup> females shows no significant rhythm in light-dark conditions. A morning peak remains visible, but the evening peak is negligible.  $p = 0.60$ . Average food consumption per fly over a 24 hour period was 0.71  $\mu\text{L}$ . (D) *per*<sup>01</sup> food consumption shows no significant rhythm in constant darkness. No peaks are visible at any time.  $p = 0.78$ . Average total food consumption per fly over a 24 hour period was 0.62  $\mu\text{L}$ .  $N = 10$  groups per condition.